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Application No. 10/825,139
Amendment dated July 18, 2005
Reply to Office Action of February 17, 2005

- REMARKS/ARGUMENTS -

Claims 1 to 14, 16 and 17 remain in the application.

Claims 1 to 4 stand rejected under 35 U.S.C. 102(e) as being anticipated by United States Patent No. 6,144,444 (Haworth et al.).

According to Haworth et al.'s patent the fiber input and output are on the same side of the conduit. Light entering the blood in the tube has to scatter backwards to provide a signal for the return fibers. Haworth et al. proposes specifically two return fibers referred to as a near and a far fiber where there is a difference in the distance the light has to scatter to return to the fibers in question. This provides a long and a short path of transmission through the blood which is used in an equation to determine some specific blood properties, such as dissolved oxygen.

The scheme of Haworth et al. does not work for clear non-scattering fluids. Haworth et al.'s set up is truly limited to scattering fluid, such as blood. When there is no scattering of light, it is necessary to precisely guide the light from the input to the output just as if there was no fluid present in the conduit. Haworth et al. clearly lacks any means to do so. This has been done in the past with a closed light source and closed receiver, as for instance, disclosed in United States Patent No. 6,510,330 (Enejder). This has never been done with fiber optics since it is much more difficult because the light is emitted at the end of the fiber which is very tiny and spreads over a significant cone in all directions.

Contrary to Haworth et al., Applicants' claimed device permits transmitting light from fiber optic light conduits through an empty conduit as well as through a conduit with a clear non-scattering fluid. Haworth et al. clearly lacks any means for relaying the light across a conduit in such a way that it is efficiently coupled into a receiver fiber. Furthermore, there is no motivation to modify Haworth et al.'s apparatus since it is only concerned with scattering fluids.

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In view of the foregoing amended independent Claims 1 and 12 are clearly novel and non-obvious over Haworth et al. taken alone or in combination with the other references made of record.

All the other patents cited by the Examiner use a type of clip-on arrangement where there is a direct attachment of a source of light and a light receiver. No fiber optic coupling is suggested in any of these other patents.

The remaining dependent claims are believed patentable at least for the reasons above set forth with respect to independent Claims 1 and 12. Dependent Claims 4, 6, 7, 9, 10, 11 and 14 have been slightly amended in view of the amendments made to Claims 1 and 12.

Claims 15 and 18 to 20 have been cancelled.

Applicants believe that all the claims are allowable and respectfully request a Notice of Allowance. Applicants also invite the Examiner to call the undersigned if it is believed that a telephone interview would expedite the prosecution of the above identified application to an allowance.

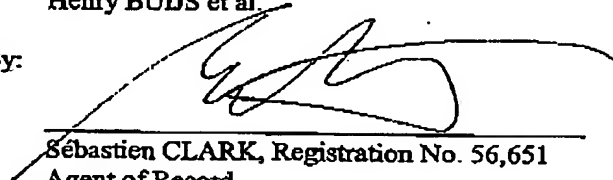
Respectfully submitted,

Henry BUIJS et al.

By:

July 18, 2005

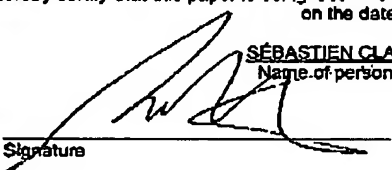
Date



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SÉBASTIEN CLARK, Reg. No. 56,651 Name of person signing certification	
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